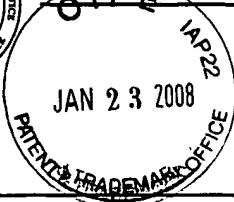




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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/538,719 | 03/09/2006 | Volker Seipel | 588-1050 | 6791 |
| <div>23280 7590 01/14/2008</div> <div>Davidson, Davidson & Kappel, LLC</div> <div>485 17th Avenue</div> <div>14th Floor</div> <div>New York, NY 10018</div> | | | | |
| | | | EXAMINER | |
| | | | LAZO, THOMAS E | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3745 | |
| | | | MAIL DATE | DELIVERY MODE |
| | | | 01/14/2008 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/538,719

Applicant(s)

SEIPEL ET AL.

Examiner

Thomas E. Lazo

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 39-48 is/are allowed.
- 6) ☒ Claim(s) 30-37 is/are rejected.
- 7) ☒ Claim(s) 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Response to Amendment

Applicant's amendment filed 11/29/07 is acknowledged.

The applicant has overcome the rejection to claims 30-34, 36, and 37 under 35 USC 102(b) by amending claim 30. The rejections of claims 30-37 under 35 USC 102(b) is withdrawn.

The applicant has overcome the rejection to claim 35 under 35 USC 103(a) by amending claim 30. The rejection of claim 35 under 35 USC 103(a) is withdrawn.

Response to Arguments

Applicant's arguments with respect to claim 30 have been considered but are moot in view of the new ground(s) of rejection necessitated by the amendment of claim 30.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30-34, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura et al. (2001/0022134) in view of Fujita (6,321,635). Sugiura et al. discloses an axial piston machine with a piston having a substantially cylindrical piston body 504, and a brace 502

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configured to receive a tilting plate and piston shoes slidably disposed on the tilting plate, wherein the brace 502 includes spherical cap-shaped depressions 114 for receiving the piston shoes, the depressions 114 are located on a first side of the brace 502 adjacent the piston body 504 and on a second side of the piston brace 502 opposite the first side, wherein the substantially cylindrical piston body 504 and the brace 502 are separate parts assembled together to form the piston, the axial piston machine includes an air-conditioner compressor for a motor vehicle, the brace 502 includes a strip of sheet metal, and the piston body 504 includes a part of sheet metal, the brace 502 is connectable to the cylindrical piston body 504, the brace 502 includes an opening, the spherical cap-shaped depressions 114 are produced during a forming process of the brace 502, the brace 502 and the piston body 504 are joined together by welding, and the piston includes a substantially air tight hollow space between the brace 502 and the piston body 504. The patentability of the sheet metal, the brace, and the piston do not depend on the deep drawing process, punching, and laser or resistance welding processes. See MPEP 2113 Product-by-Process Claims. Sugiura et al. does not disclose that the brace has an opening on the second side of the piston brace opposite the piston body.

Fujita teaches for an axial piston machine with a piston having a substantially cylindrical piston body, and a brace configured to receive a tilting plate and piston shoes slidably disposed on the tilting plate, wherein the brace includes spherical cap-shaped depressions for receiving the piston shoes, the depressions are located on a first side of the brace adjacent the piston body and on a second side of the piston brace opposite the first side and that the brace has an opening 33 on the second side of the piston brace opposite the piston body for the purposes of supplying lubricating oil to the sliding portions of the pistons and shoes. See Fujita col. 4, lines 42-50.

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Since Sugiura et al. and Fujita are both axial piston machines with piston bodies and braces, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the brace of Sugiura et al., based on the teachings of Fujita et al., such that the brace has an opening on the second side of the piston brace opposite the piston body for the purposes of supplying lubricating oil to the sliding portions of the pistons and shoes.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura et al. and Fujita et al., as applied to claim 30 above, in further view of Ishizuka (4,379,425). Sugiura et al. discloses all of the claimed subject matter further including that the brace and the piston body are formed of aluminum and that they can be formed of other materials. Sugiura et al. does not disclose that the brace and the piston body are formed of steel.

Ishizuka teaches for an axial piston machine with a piston having a substantially cylindrical piston body, and a brace configured to receive a tilting plate and piston shoes slidably disposed on the tilting plate and that the brace and the piston body are formed of steel for the purposes of providing a light weight and high strength hollow piston. See Ishizuka col. 4, lines 53-66.

Since Sugiura et al., Fujita et al., and Ishizuka are all axial piston machines with hollow pistons, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to further modify the hollow piston of Sugiura et al., based on the teachings of Ishizuka, to have the brace and the piston body formed of steel for the purposes of providing a light weight and high strength hollow piston.

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Allowable Subject Matter

Claims 38 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 39-48 are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

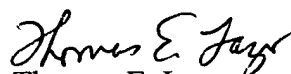
Contact Information

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thomas E. Lazo
Primary Examiner
Art Unit 3745
January 8, 2008

| | | | | |
|-----------------------------------|---------------------------------------|--|---|-------------|
| Notice of References Cited | Application/Control No. 10/538,719 | | Applicant(s)/Patent Under Reexamination SEIPEL ET AL. | |
| | Examiner Thomas E. Lazo | | Art Unit 3745 | Page 1 of 1 |

U.S. PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|---|--|-----------------|-----------------|----------------|
| * | A | US-6,321,635 B1 | 11-2001 | Fujita, Masaaki | 92/71 |
| | B | US- | | | |
| | C | US- | | | |
| | D | US- | | | |
| | E | US- | | | |
| | F | US- | | | |
| | G | US- | | | |
| | H | US- | | | |
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| | K | US- | | | |
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| | M | US- | | | |

FOREIGN PATENT DOCUMENTS

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NON-PATENT DOCUMENTS

| * | | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
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| | U | |
| | V | |
| | W | |
| | X | |

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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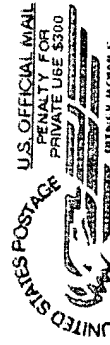
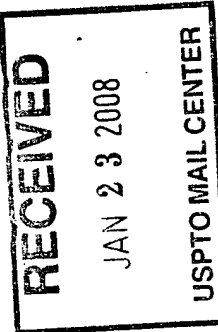
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